REMARKS

Claims 26-49 are pending in this application for the Examiner's review and consideration. Original claims 1-25 were canceled. New claims 26-49 are fully supported by the specification. No new matter is added by these new claims so that their entry at this time is warranted.

THE CLAIM OBJECTIONS

Claims 16 and 17 were objected to for depending from withdrawn claim 15 but were examined as if they depended from claim 10. The cancellation of claims 16 and 17 renders the objection moot.

THE REJECTION UNDER 35 U.S.C. § 102(B)

Claim 1 was rejected as being anticipated by U.S. published application no. 2006/0014743 to Boojamra *et al.* ("Boojamra") for the reasons set forth on pages 3-4 of the Office Action. The rejection of claim 1 is rendered moot by the cancellation of claim 1. Applicant, however, will address the rejection with respect to new claims 26-49.

Boojrams discloses florfenicol type antibiotics (*See*, Boojamra, ¶ [0002]). The structure of the compounds are depicted at ¶¶ [0008] to [0028].

As the Examiner is aware, in order to establish anticipation under 35 U.S.C. § 102(b) a prior art reference must disclose each and every limitation either expressly or inherently in a single prior art reference. *See, Celeritas Techs. Ltd. v. Rockwell Int'l Corp.*, 150 F. 3d 1354, 1360 (Fed. Cir. 1998); *Standard Havens Prods., Inc. v. Gencor Indus. Inc.*, 953 F.2d 1360, 1369 (Fed. Cir. 1991); *Jamesbury Corp. v. Litton Indus. Products*, 756 F. 2d 1556 (Fed. Cir. 1985); *American Hospital Supply v. Travenol Labs.*, 745 F.2d 1 (Fed. Cir. 1984). There must be no difference between the claimed invention and the reference disclosure as viewed by one of ordinary skill in the art. *See, Scripps Clinic & Research Fdn. v. Genentech*, 927 F.2d 1565, 1576 (Fed. Cir. 1991), *Carella v. Starlight Archery and Proline Co.*, 804 F.2d 135, 138 (Fed. Cir. 1986); *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984). Put another way, "[a] claim is anticipated and therefore invalid only when a single prior art

reference discloses *each and every limitation of a claim.*" *Glaxo Inc. v. Novapharm Ltd.*, 52 F.3d 1043, 1047, cert. denied, 116 S. Ct. 516 (1995) (citations omitted). In addition, to anticipate, the reference must also enable one of skill in the art to make and use the claimed invention. *In re Donohue*, 766 F.2d, 532, 533 (Fed. Cir. (1985).

Applicant respectfully submits that Boojamra does not anticipate the currently pending claims because Boojamra does not disclose each and every feature of these claims. Specifically, Boojamra does not disclose ester prodrugs of florfenicol. Boojamra is directed to compounds that are "florfenicol *type* antibiotics" (*See*, Boojamra, ¶ [0002], emphasis added). The compounds disclosed in Boojamra are different from florfenicol and do not encompass florfenicol, much less an ester prodrug of florfenicol. In particular, R^4 of the compounds disclosed in Boojamra distinguish them from florfenicol. In contrast, the claims are directed to ester prodrugs of florfenicol, not "florfenicol *type* antibiotics." Moreover, Boojamra clearly does not disclose or even suggest a composition that includes a combination of a first ester prodrug of florfenicol and a second ester prodrug of florfenicol, as recited in new claims 26-34, or the specific ester prodrug florfenicol butyrate in the specific solvents recited in claims 35-49.

Because Boojamra does not disclose each and every feature of the composition claimed in new claims 26-38, Applicant respectfully asserts that Boojamra does not anticipate these claims. Similarly, because Boojamra does not anticipate new composition claims 26-38, it also does not anticipate new claims 39-49, which depend from claims 26-31, 33, and 35-38, respectively, and recite using the compositions to treat a bacterial infection in a feline. Accordingly, for the above reasons, Applicants respectfully submit that new claims 26-49 are not anticipated under 35 U.S.C. § 102(b).

THE REJECTIONS UNDER 35 U.S.C. § 103(A)

Claims 2-10 and 17 were rejected as being anticipated by Boojamra in view of U.S. patent no. 6,710,068 to LaColla *et al.* ("LaColla") and U.S. patent no. 5,158,948 to Schoenleber *et al.* for the reasons set forth on pages 3-4 of the Office Action. The rejection of claims 2-10 and 17 are rendered moot by the cancellation of these claims. Applicant, however, will address the rejection with respect to new claims 26-49.

The disclosure of Boojamra is discussed above. LaColla discloses phenylindoles that are useful for treating HIV infection (*See*, LaColla, column 1, lines 8-11). Schoenleber discloses tetracyclic spirobenzazepine compounds that are dopamine D-1 receptor antagonists (*See*, Schoenleber, column 1, lines 12-18). The Examiner acknowledges that Boojamra does not teach the "esterified form and the specific concentrations of florfenicol" and relies on LaColla as teaching pharmaceutically acceptable prodrugs (such as an ester) and Schoenleber as teaching esters useful as prodrugs for phenol compounds.

As the Examiner is aware the proper inquiry for obviousness is whether the reference discloses each and every feature of the claim (*See*, MPEP, ¶ 1242) and whether the references suggest the invention and provides one of ordinary skill in the art with a reasonable expectation of success. *In re Vacek*, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991); *In re O'Farrell* 853 F.2d 894, 7 U.S.P.Q. 2d 1673 (Fed. Cir. 1988).

Applicant respectfully submits that the combination of references do not render new claims 26-49 obvious because the references do not discloses each and every feature of the claims, suggest the invention, or provide a reasonable expectation of success. Specifically, as discussed above, Boojamra does not disclose florfenicol but discloses "florfenicol type antibiotics." Accordingly, even if one was to make esters prodrugs of the "florfenicol type antibiotics" disclosed in Boojamra it would not result in the claimed compositions, which are ester prodrugs of florfenicol. Rather, it would provide ester prodrugs of "florfenicol type antibiotics." Moreover, there is no disclosure or suggestion in any of the references to make a composition that includes a combination of a first ester prodrug of florfenicol and a second ester prodrug of florfenicol, such as recited in new claims 26-34. The combination of a first ester prodrug of florfenicol and a second ester prodrug of florfenicol, however, advantageously allows for an "initial burst" followed by a slower more sustained release to provide a better pharmacokinetic profile (*See*, Specification, ¶ [0028] - [0029], [0036], and Example 10 ¶ [0058]). In other words, using a combination provides a product that is a therapeutically more effective product and a safer product. Thus, even if the references did suggest ester prodrugs of florfenicol, they clearly do not suggest a combination of esters, much less suggest that varying the ester group will affect the release rate and pharmacokinetic profile and, therefore, the serum level of florfenicol. The references also do not provide a reasonable expectation that such a

combination would successfully provide a therapeutically more effective product and a safer product.

Similarly, even if the combination of references did disclose or suggest ester prodrugs of florfenicol, which they do not for the reasons discussed above, there is no disclosure or suggestion in any of the references to make a composition that includes florfenicol butyrate, such as recited in new claims 35-38. Applicant, however, has discovered that compositions containing florfenicol butyrate are superior to compositions that contain florfenicol or other prodrugs of florfenicol. In particular, when administered to a cat, florfenicol butyrate compositions are superior at providing an effective level of florfenicol in the serum while reducing toxicity. Unlike other prodrugs of florfenicol that were studied, when florfenicol butyrate is administered to a cat and samples of the cat's serum analyzed over time, there is detected in the serum effective levels of florfenicol but undetectable levels of the prodrug (*i.e.*, the florfenicol butyrate). Without wishing to be bound by theory, applicant believes that this is due to florfenicol butyrate having a unique release rate and metabolism rate by esterases so that when a composition comprising florfenicol butyrate and a pharmaceutically acceptable solvent is administered to a cat it provides a serum level of florfenicol that is unexpectedly safe and effective.

We attach hereto a Declaration under 37 C.F.R. § 1.132 ("Declaration," Exhibit A) describing a study conducted at the direction of the inventor, Dr. Murthy, showing the improved benefit of administering florfenicol butyrate to cats compared to florfenicol. In particular, the study shows that the subcutaneous administration of 120 mg/kg of commercially available florfenicol (NUFLOR®) to cats causes serious adverse effects including vomiting, which could be due to hepatotoxicity, whereas subcutaneous administration of 120 mg/kg of a composition of florfenicol butyrate reduced the severity of the adverse effects (*See*, Declaration, ¶ 6). Indeed, the administration of 120 mg/kg of a composition of florfenicol butyrate has minimal or no adverse effects, yet is effective. Thus, even if the combination of references did disclose or suggest prodrug esters of florfenicol, the references provide no motivation to select florfenicol butyrate as the prodrug ester of florfenicol for use in a pharmaceutical composition or provide any reasonable expectation that such a composition would be advantageous for administration to animals, in particular cats.

Applicant respectfully submits that the references cited by the Examiner also do not render dependent method of use claims 39-49, which depend from claims 26-31, 33, and 35-38, respectively, and recite using the compositions to treat a bacterial infection in a feline. Accordingly, for the above reasons, Applicants respectfully request that new claims 26-49 are not rendered obvious by the combination of Boojamra, LaColla, and Schoenleber.

Claims 8-10 and 16 were rejected under 35 U.S.C. § 103(a) as being rendered obvious by U.S. patent no. 5,336,664 to Camaggi et al. ("Camaggi") for the reasons set forth on pages 6-7 of the Office Action. The rejection of claims 8-10 and 16 are rendered moot by the cancellation of these claims. Applicant, however, will address the rejection with respect to new claims 26-49.

Camaggi discloses herbicides for agricultural use (*See*, Camaggi, column 1, lines 6-10). The structure of the herbicides is provided at column 1, line 11 to column 2, line 30 of Camaggi. The Examiner alleges that Camaggi discloses florfenicol propionate

Applicant respectfully submits that Camaggi also does not render the new claims obvious. As discussed above, the new claims, are directed to compositions that include a combination of a first ester prodrug of florfenicol and a second ester prodrug of florfenicol, *i.e.*, new claims 26-34, or florfenicol butyrate, *i.e.*, new claims 35-38. There is, however, no disclosure or suggestion in Camaggi to make a combination of two ester prodrug of florfenicol, as claimed in claims 26-34. Moreover, Camaggi provides no reasonable expectation that such a combination would successfully provide a therapeutically more effective product and a safer product, as discussed above, or have the unexpected advantages described above.

Similarly, with regard to claims 35-38, there is no disclosure or suggestion in Camaggi to make a composition that includes florfenicol butyrate and Camaggi does not provide any reasonable expectation that such a composition would be advantageous for administration to animals, in particular cats. Accordingly, for the same reasons, discussed above, that the combination of Boojamra, LaColla, and Schoenleber do not render the new claims obvious, Camaggi does not render these claims obvious. Similarly, for the reasons discussed above, Camaggi also does not render obvious dependent method of use claims 39-49, which depend from claims 26-31, 33, and 35-38, respectively, and recite using the compositions to treat a bacterial infection in a feline. Indeed, Camaggi only discloses using the compounds as

herbicides, not for administration to animals. Accordingly, for the above reasons, Applicants respectfully request that new claims 26-49 are not rendered obvious by Camaggi.

CONCLUSIONS

It is respectfully submitted that all claims are now in condition for allowance, early notice of which would be appreciated. Should the Examiner disagree, Applicant respectfully requests a telephonic or in-person interview with the undersigned attorney to discuss any remaining issues and to expedite eventual allowance of the claims.

No fee is believed to be due for this submission. Should any additional fees be required, please charge the required fees to Kenyon & Kenyon deposit account no. 11-0600.

Respectfully submitted,

Date: January 19, 2007

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